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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,321

03/17/2006

Tadashi Onishi

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EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT

PAPER NUMBER

1773

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/572,321

Applicant(s)

ONISHI ET AL.

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/17/2006.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 2 and 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 7 and claim 2, line 11, the phrase "and Mo" should be changed to the phrase -- or Mo -- for clarity.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Takashi et al (JP 2002220262, Machine Translation).

Takashi et al disclose insulating glass laminate comprising an interlayer (10) containing ultra fine particles such as ATO or ITO having particle size 0.2 microns or less (Paragraphs 0023-0026) and infrared reflective film (11) sandwiched between two glass plates. The infrared reflective film comprises high and low refractive index layers of silicon oxide layer and titania layer (Paragraph 0022) (Fig. 2). Takashi et al disclose sheet resistance 20 K ohm/square or higher (Paragraph 0033).

7. Claims 1, 2 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al (U.S. Patent 6,911,254 B2) in view of Muromachi et al (U. S. Patent 5,336,565) and Kondo (U.S. Patent 5,830,568).

Fisher et al disclose a laminated glass comprising: glass/interlayer containing ultrafine particles/interlayer coated with infrared reflecting layer/interlayer/glass (Example 11) or solar reflection or low e-glass/interlayer/interlayer containing ultrafine

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particles/tinted glass (Example 12). Fisher et al's ultrafine particles, such as antimony doped tin oxide (ATO) or indium doped tin oxide (ITO), have particle size less than 0.2 microns (i.e. 200 nm) (Col. 4, lines 9-24). Fisher et al's interlayer film coated with infrared reflecting layer can be polyvinyl butyral layer, polyethylene terephthalate film etc. (Col. 4, lines 25-36 and Example 11). Fisher et al fail to disclose claimed sheet resistivity, other claimed ultrafine particles and solar reflection glass with claimed infrared reflective layer(s).

Muromachi et al disclose a solar reflection glass with claimed infrared reflective layers (Abstract, col. 2, lines 3-29 and Examples). Muromachi et al disclose required sheet resistivity for windshield having antennas (Col. 2, lines 45-49 and Table 1).

Kondo discloses laminated glass having a multilayer interlayer wherein one layer of the inter layer comprises ultrafine particles having particle size up to 0.2 microns (Col. 2, line 60 to col. 3, line 18 and col. 4, line 3 to col. Col. 5, line 2). Kondo discloses sheet resistivity of a glass with glass antenna which includes claimed sheet resistivity (Col. 5, lines 50-65).

Therefore it would have been obvious to a person of ordinary skill in the art at time of this invention made to utilize disclosure of Muromachi et al and/or Kondo in the invention of Fisher et al to make windows with sheet resistivity as taught by either Muromachi et al or Kondo.

No claims are allowed.

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8. Receipt of Information Disclosure filed March 17, 2006 is acknowledged and all recited documents have been made of record.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



D. S. Nakarani
Primary Examiner
Art Unit 1773

DSN
March 30, 2007.